

Docket 82678AF-P  
Customer No. 01333

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of

David L. Patton, et al

**AUTHENTICATION USING  
NEAR-FIELD OPTICAL  
IMAGING**

Serial No. 09/957,011

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Group Art Unit: 3722  
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Examiner: Willmon Fridie, Jr.

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Commissioner for Patents  
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Sir:

**SUPPLEMENTAL APPEAL BRIEF PURSUANT TO 37 C.F.R. 1.192**

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## **APPELLANT'S BRIEF ON APPEAL**

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-3, 5 and 7 which was contained in the Office Action mailed April 6, 2004. An Official Action dated January 12, 2005 was issued wherein the prosecution of the application was reopened and new grounds of rejection was recited against the claims which required the necessity of filing this new appeal brief.

A timely Notice of Appeal was mailed on July 21, 2004.

### **Real Party In Interest**

As indicated above in the caption of the Brief, the Eastman Kodak Company is the real party in interest.

### **Related Appeals And Interferences**

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

### **Status Of The Claims**

Claim 1-3, 5 and 7 are pending in the application. Appendix I provides a clean, double-spaced copy of the claims on appeal.

### **Status Of Amendments**

All amendments have been entered and the claims stand as indicated in Appendix I.

### **Summary Of Claimed Invention**

The invention according to claim 1 is directed to a method of making a continuous tone image, comprising the steps of making at least one micro discrete continuous tone image 10 (Figs. 1a & 1b) on a photosensitive media 5 wherein

said discrete continuous tone image is formed on a photosensitive media capable of producing a continuous tone image using near-field optics, said continuous tone image being less than about .015 mm.

The invention according to claim 5 is directed to method of making a discrete micro continuous tone image 10 on a photosensitive media, comprising the steps of providing a photosensitive media capable of producing an continuous tone image thereon using a near-field imaging device; and forming a continuous tone image 10 on said media 5, said micro discrete continuous tone image being no larger than about 20 microns.

The invention according to claim 7 is directed to a product 48 (Fig. 8) having a plurality of micro discrete continuous tone images 10 placed thereon by near-field optics, said continuous tone image each having a size no greater than about 20 microns.

### **Grounds of Rejection to be Reviewed**

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Whether claims 1-3, 5 and 7 are unpatentable under 35 USC § 103(a) over U.S. Patent 5,904,375 to Brugada in view of U.S. Patent 6,396,789 B1 to Guerra et al.
2. Whether claims 1-3, 5 and 7 are unpatentable under 35 USC § 102(e) as being anticipated by Naya et al.

### **Arguments**

#### ***The Rejection***

*Claims 1, 2, 3 and 5*

A. The Examiner, in the Official Action dated January 12, 2005 rejected claims 1-3, 5 and 7 under 35 USC § 102(e) as being unpatentable over Naya et al.

Claims 1 and 5 are independent method claims directed to a method of making a continuous tone image on a photosensitive media. Both independent claims 1 and 5 include the limitation of producing the continuous tone image using near-field imaging optics/device or device wherein the image that is formed is no greater than about 20 microns. Claims 2 and 3 depend at least ultimately upon independent claim 1 and provide further description of the size of the image.

The Examiner has argued that Naya et al. disclosed the method and all the subject matter as set forth in the claims and is identical to the invention as broadly recited. The Examiner further stated "Some of the claimed elements clearly disclosed by the reference are: a discrete continuous tone image formed by near field optics on a photosensitive media" wherein the Examiner relies at column 3, lines 58-65. The Examiner further recites column 4, lines 27-30 that the continuous image is less than .015mm and no greater than 10 or 20 microns.

Applicant would respectfully submit that the Naya et al. reference does not teach or suggest disclosing discrete continuous tone images as taught and claimed by Applicant. In this regard, an "image" as defined by Webster's II New College dictionary is: "A reproduction of the form of someone or something, esp. a sculptured likeness. 2. An optically formed duplicate, counterpart, or other representative reproduction of an object, esp. an optical reproduction of an object by a mirror or lens". Thus it is clear that an "image" is not simply a line or mark but a reproduction of someone or something. The Naya et al. reference does not teach or suggest providing an image. In particular, the references cited by the Examiner talked about a pattern having a line width. A line width is not an image in the context to what the present invention is directed. In particular, Applicants refer to the specification at page 4, lines 26-31 and figures 1b, 1c and 1d of providing examples of a continuous tone image. As can be clearly seen, these images are not lines but reproductions of something or someone. Thus the lines as described and disclosed in the Naya et al. reference totally fail to meet the limitation of providing images taught and claimed by Applicant.

Furthermore, the claim specifically sets forth that the image is a “continuous tone” image. A “continuous tone” image is an image having varying shades and/or colors. There is no teaching or suggestion that the line of Naya et al. can or should produce any variation in shade or color. Again, the clear understanding of tone in the context of the present invention can be found in Webster’s II New College Dictionary in definition 7. that states “A color or shade of color. B. Quality of color”. This is consistent with the description as set forth in the present application. Again reference is made to page 4, lines 28-30 of the present application. There is no teaching or suggestion providing a continuous tone line in the Naya et al. reference. The passage at page 4 lines 27-30 of Naya is simply directed to a fine pattern that is produced by the lines. Applicant respectfully submits that the Naya et al. reference teaches away from the claimed invention as Naya et al. is directed to a fine pattern forming method for use in the photolithography process. The present invention is directed to producing extremely small images. In the photolithography process, there is producing a plate for producing large scale type images, whereas the present invention is directed to producing extremely small “continuous tone images”. Accordingly, it is respectfully submitted that the Naya et al. reference could not teach or suggest the invention as taught and claimed by Applicant.

B. The Examiner, in the Official Action dated April 6, 2004 rejected claims 1-3 and 5 under 35 USC § 103(a) as being unpatentable over Brugada in view of Guerra et al.

The Examiner cited Brugada as disclosing a micro discrete continuous tone image of the claims except for the image formed by near-field optics. In this regard Applicant respectfully submits that the Examiner is incorrect. The Brugada reference discloses providing of security microdot pattern on documents to prevent falsification of the documents. First, Brugada does not teach or suggest putting on a photosensitive media as taught and claimed by Applicant. In particular, Brugada discloses the use of an ink for producing the micro pattern (see Abstract lines 4-9; column 2, lines 29-31; column 2, line 42; column 2, lines 60-61; column 3, lines 13-14; column 4, line 31 and in the claims). It is quite evident

that the microdots of Brugada are formed by inks. This is in contrast to the present invention which specifically describes providing continuous tone images on a photosensitive media. In the present invention the images are formed by a totally different technique. In particular, the use of dyes in a photosensitive media and the exposure to light for forming the images thereon. Thus, the Brugada reference fails to teach or suggest one of the claimed aspects of the present invention of forming an image on a photosensitive media.

Secondly, Brugada does not teach or suggest providing a continuous tone image. Quite the contrary, they talk about providing microdot patterns. Thus, there is no teaching or suggestion of providing a continuous tone image as also taught and claimed by Applicant. Further, the images in Brugada can be seen by a simply viewing through a magnifying glass. As set forth at column 3, lines 33-35, a simple magnifier will readily allow detection of the microdots. This is in contrast to the present invention where the micro continuous tone images are designed not to detract from the original printing. See page 4, lines 25-27 of the present application.

In the present invention the claimed size of the continuous tone image is less than about .015 mm. **Substantially smaller than suggested by Brugada.** The Brugada reference is further distinguishable in that the technique for providing the images of the present invention is distinct from the Brugada reference. The providing of micro discrete continuous tone images as claimed by Applicant is enabled by using near-field optics as set forth in the independent claims. Brugada could not teach or suggest the present invention as the physics of the image formation mechanism in the Brugada reference is entirely different from the near-field optics set forth in the present invention. The resolution of the image formed by near-field optic technology was not anticipated or suggested by classical optics utilized in Brugada where the resolution is limited by the physical diffraction theory. The use of near-field optics technology, as set forth in the independent claims, allows for the formation of images with resolutions that far exceed the limits of printing systems as disclosed in Brugada.

Applicant respectfully submits that the Brugada reference is deficient in many respects from that of the claimed invention.

The Examiner relies on Guerra et al. for supplying the missing features of the claimed invention. Applicant respectfully submits that the Guerra et al. reference fails to teach anything that would render Applicant's invention obvious. First, the Guerra et al. reference simply discloses the use of near-field optics for providing of data which typically takes the form of optical data which are super resolution spots. See column 5, lines 13-21 and column 8, lines 46-47. There is no teaching or suggestion of providing a continuous tone image in Guerra et al. The Guerra et al. reference is directed to simply providing of data for storage and retrieval. Thus, even if one were to attempt to combine Guerra et al. with Brugada, it still would lack the claimed invention.

Further, there is no teaching or suggestion in either of the references that would lead one of ordinary skill in the art to combine the references. As the CAFC has stated in *In re Lee* 277 Fed 3<sup>rd</sup> 1338 (61 USPQ 2<sup>nd</sup> 1430) at page 1433:

“When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness ... it must be based on objective evidence of record ... Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references ...there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant.”

Applicant respectfully submits that there is no teaching or suggestion in either of the references for making the combination as taught and claimed by Applicant. First, as previously discussed, the Brugada reference is directed to providing images using inks onto a media, whereas the Guerra et al. reference is directed to using near-field optics to provide data on a medium. The two are directed to two totally distinct and apart technologies. In the Brugada reference, microdots are provided by the use of inks, whereas the near-field optics of the Guerra et al. reference is used to provide data onto an optical element. The Brugada reference is directed to providing a support to prevent falsification of documents printed on the support, whereas Guerra et al. is directed to a system for

storing and retrieving of data on an optical medium. Clearly there is no teaching or suggestion in any of the references for making the combination suggested by the Examiner.

Further, even if the combination were to be made, the references clearly do not teach the suggestion of providing continuous tone images that are less than .015 mm in size as taught and claimed by Applicant.

In view of the foregoing, Applicant respectfully submits that claims 1, 2, 3 and 5 are patentably distinct over the cited references.

*Claim 7*

- A. The Examiner, in the Official Action dated April 6, 2004 rejected claim 7 under 35 USC § 103(a) as being unpatentable over Brugada in view of Guerra et al.

Claim 7 is directed to a product having a plurality of micro discrete continuous tone images placed thereon by using near-field optics wherein the continuous tone image has a size no greater than about 20 microns. In neither of the cited references does it teach or suggest providing of a product as taught and claimed by Applicant. The Brugada reference does not teach or suggest a product having micro discrete continuous tone images. As previously discussed, there is simply provided micro dots on a substrate. Furthermore, these micro dots do not have a size as small as taught and claimed by Applicant nor are they formed by near-field optics as taught and claimed by Applicant. Thus, the product of claim 7 is clearly not taught or suggested by Brugada. The Guerra et al. reference, as previously discussed, simply discloses providing data on an optical medium. Again, there is no teaching or suggestion of providing a continuous tone image of the size taught and claimed by Applicant. Accordingly, in view of the foregoing, Applicant respectfully submits that the cited art does not teach or suggest the invention as currently set forth in independent claim 7.


### **Summary**

Applicant respectfully submits the present invention is patentably distinct over the cited prior art.

### **Conclusion**

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of the Claims.

Respectfully submitted,

  
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Enclosures

## **Appendix I - Claims on Appeal**

1. A method of making a continuous tone image, comprising the steps of:

making at least one micro discrete continuous tone image on a photosensitive media wherein said discrete continuous tone image is formed on a photosensitive media capable of producing a continuous tone image using near-field optics, said continuous tone image being less than about .015 mm.

2. A method according to claim 1 wherein said micro discrete continuous tone image has a size no greater than about 20 microns.

3. A method according to claim 2 wherein said continuous tone image has a size no greater than about 10 microns.

5. A method of making a discreet micro continuous tone image on a photosensitive media, comprising the steps of:  
providing a photosensitive media capable of producing an continuous tone image thereon using a near-field imaging device; and  
forming a continuous tone image on said media, said micro discrete continuous tone image being no larger than about 20 microns.

7. A product having a plurality of micro discrete continuous tone images placed thereon by near-field optics, said continuous tone image each having a size no greater than about 20 microns.

**Appendix II - Evidence**

NONE

**Appendix III – Related Proceedings**

NONE